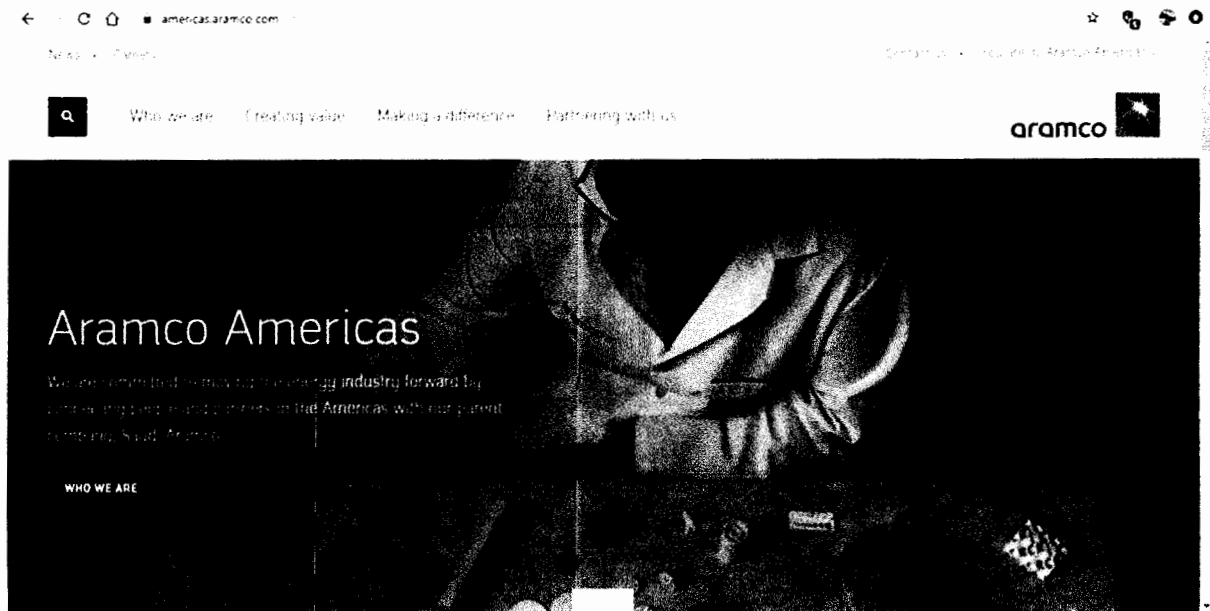



**Aramco Americas Claim Chart for Infringement on US Patent 8,438,487 Screenshots
taken from <https://americas.aramco.com/en>; Captured 12/03 and 04/2019**

Title: Method and system for one-click navigation and browsing of electronic media and their category structure as well as tracking the navigation and browsing thereof

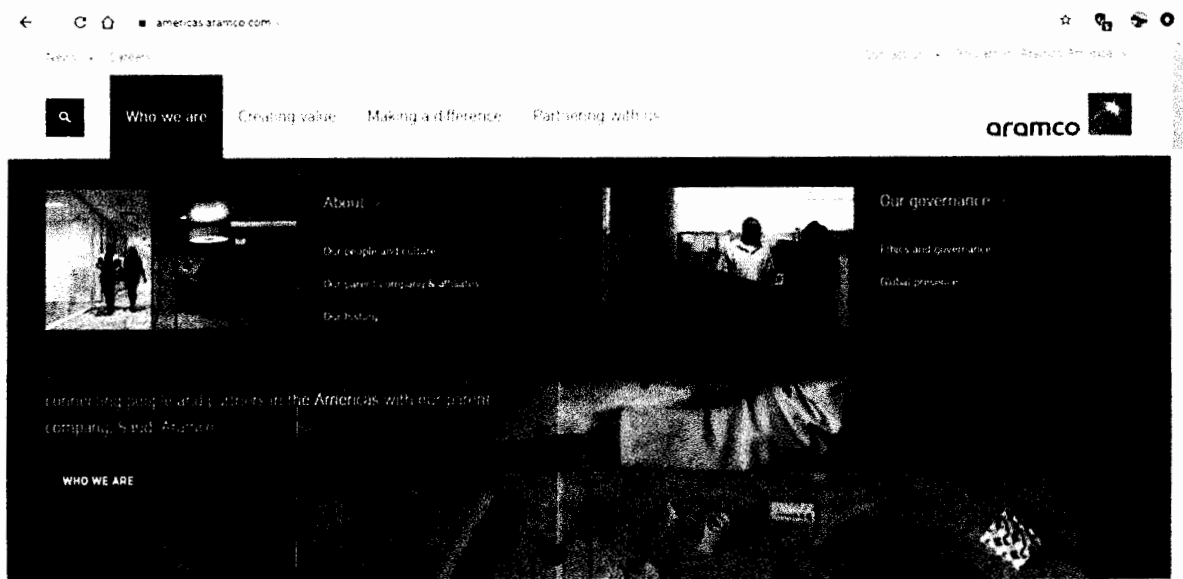
Claim 1: A system for navigating and browsing electronic media, comprising: a device enabling viewing of digitally stored information, the device being configured to display at least portions of a categorization structure for substantially all of a website having a plurality of nested cascading category levels, each category level of the plurality of nested cascading category levels comprising a plurality of

Saudi Aramco homepage captured on 12/03/2019: <https://americas.aramco.com/en>.



In the top-band above the image, a search icon “” with four top-level “Category Titles” are lined up from left to the right with Aramco and its logo (a white sun with blue sky and green earth colors surrounding the sun in a square shaped box) at the far right end. The five top level category titles are: Who we are, Creating value, Making a difference, and Partnering with us.

Click “**Who we are**”, a dropdown menu of the nested/cascading subcategory titles appears:



category titles of electronic media content stored on at least one storage device, each category title having a selectable link-token to the stored content for said each category title, said each category title also being coupled to a nested subcategory structure of said each category title, the nested subcategory structure of said each category title comprising link-tokens of category titles wherein said each category title and the category titles in the different plurality of category levels are able to be browsed independently of having to select and

Only the top screen portion of the page is captured and shown, as in all of the pages discussed in this and other claim-chart, unless otherwise stated.

The 1st level subcategory titles under "Who we are" are: "About>" and "Our governance>". The next level – 2nd level subcategory titles nested under each the two 1st level subcategory titles. These at least 3 layers of structured categorical titles are embedded with active links and the 2 levels of subcategories are hidden behind and coded under the top-level category titles displayed in the top-band as described above. This categorical structure is designed to be present and common to all or at least essential pages on the site **as taught in Patent 8,438,487**. The structure and its presence in all or at least essential pages of a website, which become visible in a pop-up or dropdown menu when a top-level category title is clicked, becoming visible and available for viewer browsing, reviewing and make appropriate selection from the menu. The dropdown menu of the at least the next two levels of subcategories nested under each top-level category becomes visible for site-user review when called upon by one-click or placing cursor on a top level category title. The ">" icon in "About>" (and "Our governance>") indicates that there is a page specifically for "About>" which can be reached by clicking on "About>".

Under the "About>" 1st level subcategory are "Our people and culture", "**Our parent company and affiliates**" and "Our history." Under the "Our governance>" are two 2nd level subcategories: "Ethics of Governance" and "Global presence".

Now click on the top-level category title "Creating value," the dropdown menu for "Who we are" disappears, and the menu for "Creating value" appears for user review and selection.



The two 1st level subcategories nested under "Creating value" are: "Services>" and "Technology and innovation>".

Nested under "Services>" are six 2nd level subcategories: "Industrial relations", "Technical services", "Procurement and logistics", "Upstream", "Public affairs" and "Host companies".

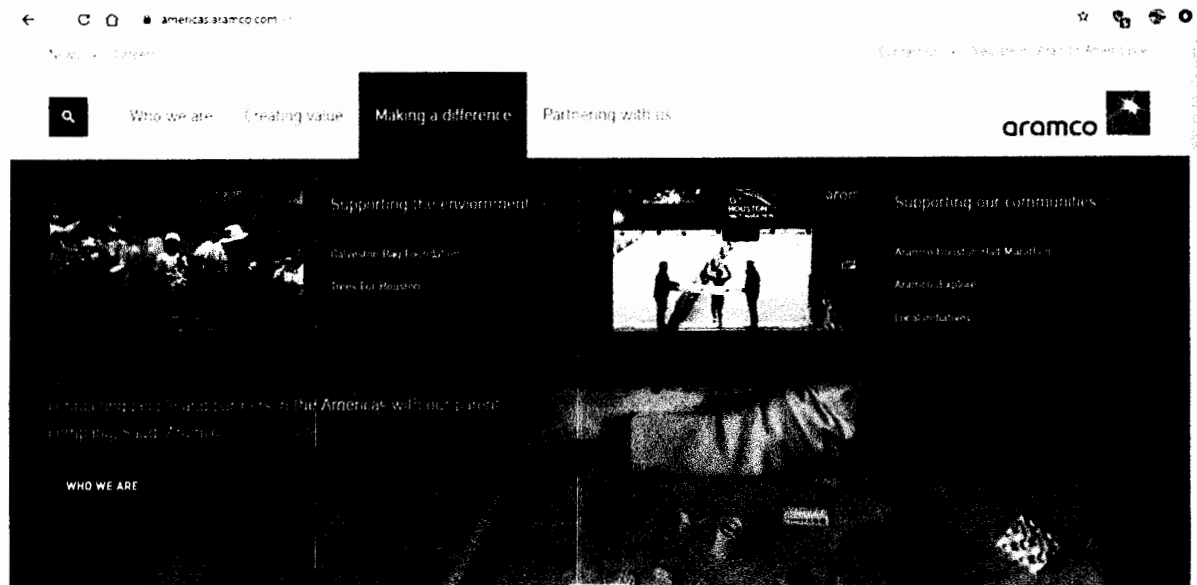
Nested under "Technologies and innovation>" are four 2nd level subcategories: "Partnering on technology solutions", "Technology breakthroughs", "Investing in startups" and "Collaborate with us". As in previously described dropdown menus, all category and

retrieve the stored content for any title from the at least one storage device, wherein the categorization structure enables a user viewing content of any category title in the categorization structure to retrieve content of any other category title in the categorization structure using a single retrieval command.

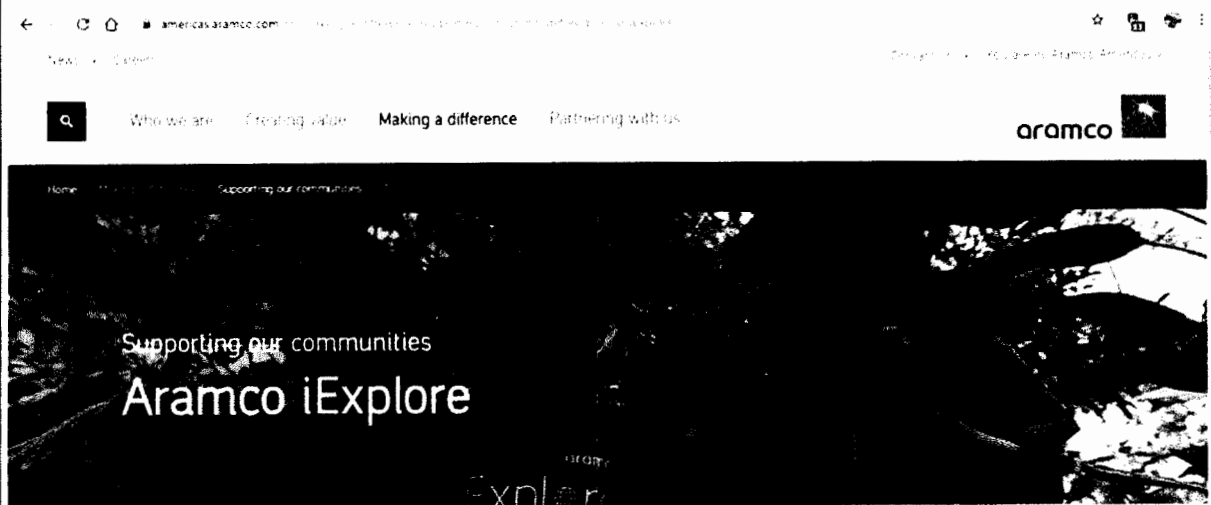
Claim 22. A system for tracking the navigation and browsing of electronic media, and facilitating the changing of navigation and browsing path, the system comprising a computer configured to

subcategory titles are embedded with links, each linking to the page with information/content related to the specific named category or subcategory title, **enabling a user/viewer reaching the page with one-click.**

Now click the 3rd top level category title “**Making a difference**”, the previously displaying menu for “Creating value” disappears, and the dropdown menu for “**Making a difference**” appears:



The two 1st level subcategories nested under “**Making a difference**” are “**Supporting the environment**” and “**Supporting our communities**”. The two 2nd level subcategories nested under “**Supporting the environment**” are “**Galveston Bay Foundation**” and “**Trees for Houston**.” The 2nd level subcategories nested under “**Supporting our communities**” are: “**Aramco Houston Half Marathon**”, “**Aramco iExplore**” and “**Local initiatives**.” All category and subcategory titles are embedded with active links, each linking to the specific page containing information /content/ for the named category or subcategory title, **enabling a user/viewer to reach the page with one-click.** As an illustrative example, let us click “**Aramco iExplore**”:



<https://americas.aramco.com/en/making-a-difference/supporting-our-communities/aramco-i-explore>

display to a user pages of content within an inter-linked content structure having a textual table format comprising at least three category levels, and to enable the user to retrieve with one single retrieval command any desired content page within the inter-linked content structure from a display of every other content page of the inter-linked content structure.

Claim 23. A system for navigating and browsing electronic media, comprising: a device for viewing of digitally

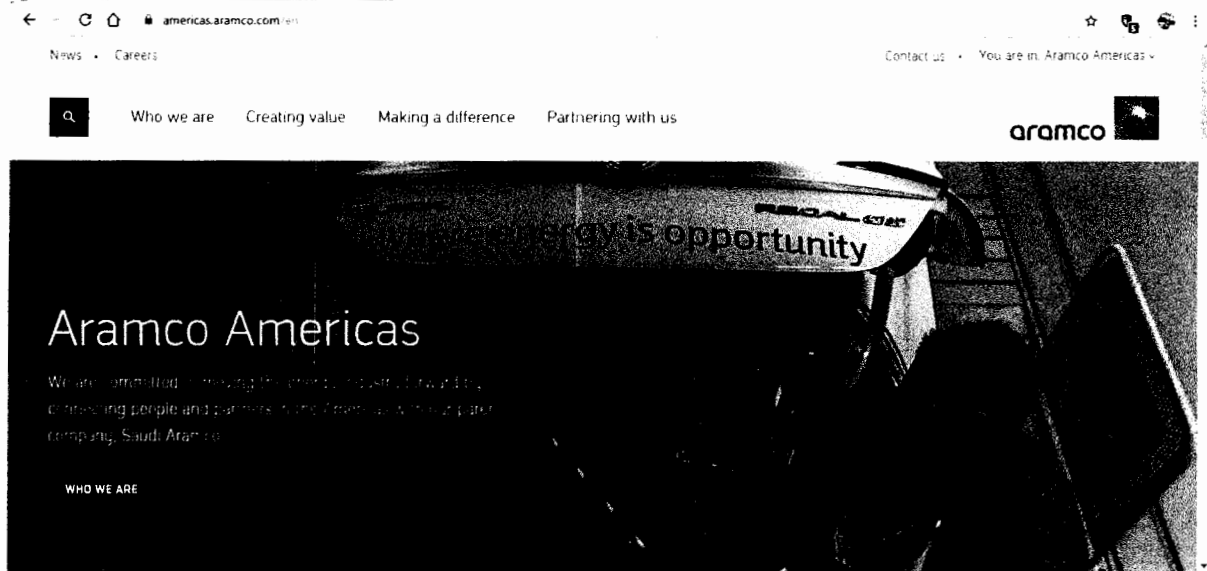
ieexplore is the URL of the page located in the 4th level of page hierarchy on the site, yet reachable with one-click from a homepage, vs the prior-art needing at least 4-clicks.

Note the “**Active One-Click Navigation Tracking String**” as taught in Patent 8438487, which displaying under the top-band and above the image of the page in a black-band:

Home > Making a difference > Supporting our communities > Aramco iExplore,

The last—right most page-title/sign-post is the present page location in the 4th level of the structured page hierarchy for the site. The next-up “sign post” is “**Supporting our community**” with an active link to the page which allows a user to conveniently click it to reach the page quickly. The next-up page in the hierarchy is “**Making a difference**” which can be reached with one-click from the top-band category title available in this 4th-level page. The left-most sign-post “Home” enables a user/viewer to reach the Homepage 3 levels up with one-click, contrasting the 3 times clicks on the “Reverse Arrow” page-back icon required in the prior-art, each time waiting for the corresponding page to load before making the next click.

<https://americas.aramco.com/en>

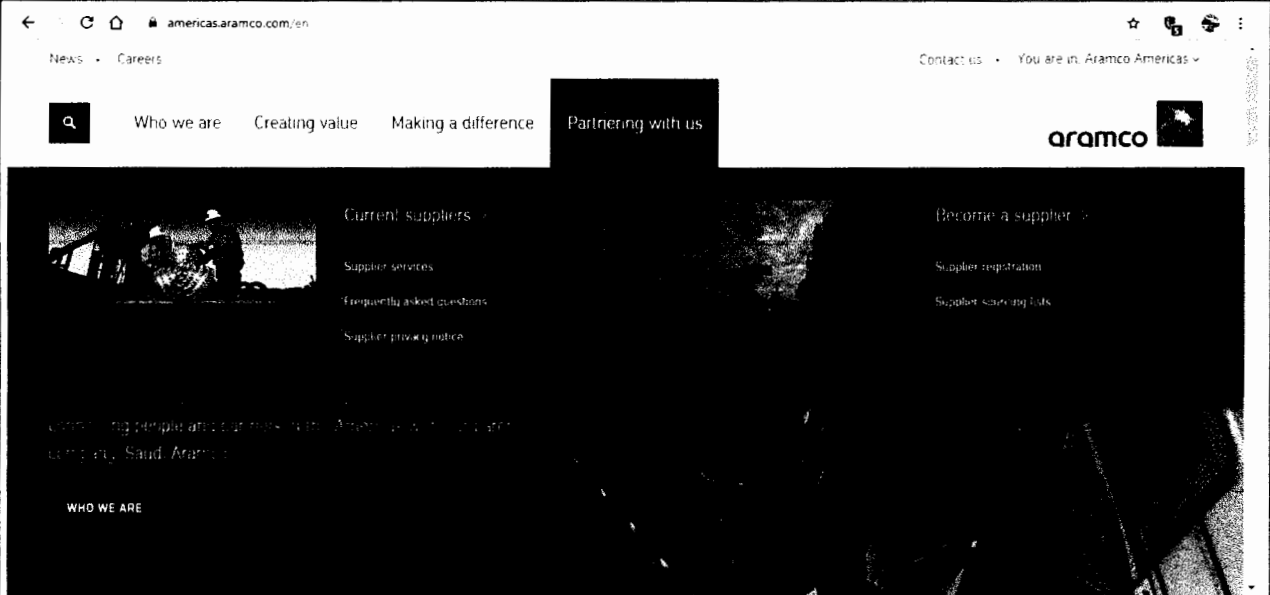


Note that the Homepage has now changed from what was previously shown at the site. It would make sense to automate the change by using any combination of features taught in Plaintiffs’ family of seven patented inventions for “Automated Change of Displaying Content on a Designated Display Area in a Webpage” to display a good number of multiple content-sets each displaying for a reasonable length of time, with cycles of changes observable by a site visitor during a reasonable time-length of site-visit by an average site visitor. This change occurred in a half day or a one day time, contributing no significant dynamism to the page.

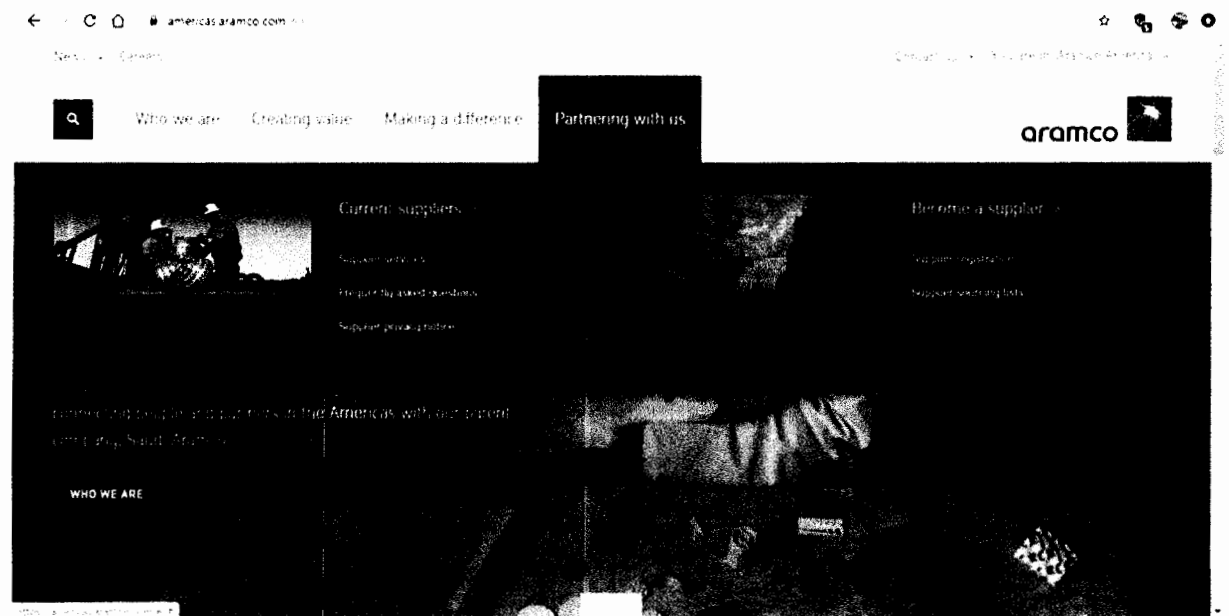
Now click the “**Partnering with us**” top level category title, the dropdown menu for “**Partnering with us**” appears, overlapping the new homepage image/content-set displaying in the top screen portion of the page (as it did the old homepage shown on the site yesterday):

<https://americas.aramco.com/en>

stored information, the device being configured to display at least portions of a categorization tree structure having a plurality of cascading category lists, each list of the plurality of cascading category lists comprising a plurality of category titles to electronic media content stored on at least one storage device, each category title having a selectable link-token to the stored content file for said each category title, wherein the device is configured to display one or more link-tokens in the stored content file for said each category title in response to



The same dropdown menu for "Partnering with us" captured yesterday overlapping yesterday's homepage is shown below:



There are two 1st level subcategories under "**Partnering with us**": "**Current suppliers**" and "**Become a supplier**"

Nested under the first level subcategory "**Current suppliers**" are three 2nd level subcategories "**Supplier services**", "**Frequently asked questions**" and "**Supplier privacy notice**".

Nested under the 1st level subcategory "**Become a supplier**" are two 2nd level subcategory titles "**Supplier registration**" and "**Supplier sourcing lists**"

placement of a cursor on the selectable link-token of said category title without clicking on or invocation of the selectable link-token of said category title, whereby the system enables the category titles in the different plurality of category lists to be browsed independently of selecting and retrieving stored content files for any title from the at least one storage device, wherein the categorization tree structure enables a user viewing content of any category title in the categorization structure to retrieve content of any other category title in the categorization structure

<https://americas.aramco.com/en/partnering-with-us/current-suppliers>:

The entire page for "Current suppliers" is captured and shown below.

The Active Navigation Tracking String as taught in this patent is shown in the top-screen:

Home / Partnering with us / Current suppliers

Suppliers

Current suppliers

We work with our existing supplier network to maintain mutually beneficial relationships that result in the procurement of high-quality goods and services.

We work with manufacturers in the Americas to source high-quality materials for Saudi Aramco. We develop strong, long-term partnerships that further the reach of our parent company as it continues to grow its global operations, business lines and projects.

Supplier services

We work with our existing supplier network to maintain mutually beneficial relationships that result in the procurement of high-quality goods and services.

LEARN MORE

Frequently asked questions

Answers to frequently asked questions for our current suppliers.

LEARN MORE

Supplier privacy notice

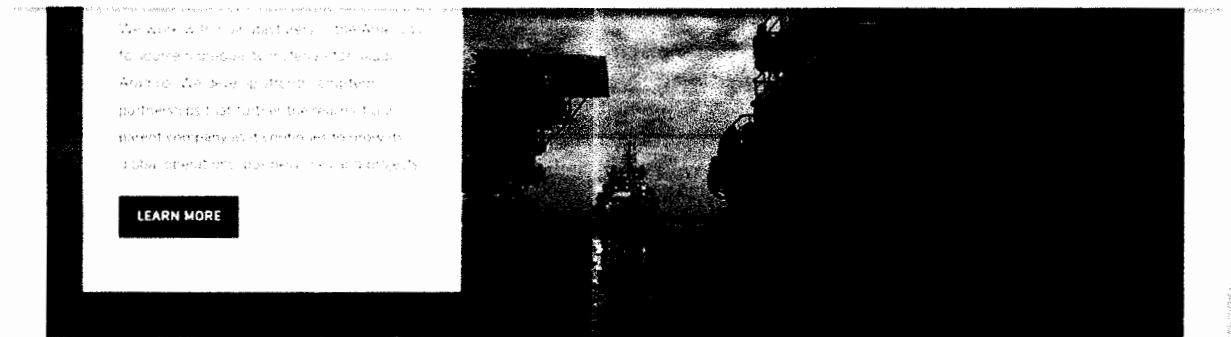
At Aramco Americas, your privacy is important to us. We have prepared this Privacy Notice to provide suppliers and potential suppliers with information about our privacy practices.

LEARN MORE

Become a supplier

using a single retrieval command.

Claim 24. A system with one or more processors and memory that enables digitally stored information to be viewed on a display device, comprising: a website comprising a plurality of web pages; a hierarchical categorization structure including a plurality of levels of nested references for substantially all of the web pages in the website, a displayed categorization structure that is viewable in conjunction with the content of any web page in the categorization structure and that includes at least a



Click the 2nd level subcategory title "Investing in startups" in the dropdown menu under the "Creating value" top level category title, the page below is displayed:

<https://americas.aramco.com/en/creating-value/technology-and-innovation/investing-in-startups>



Home / Creating value / Technology and innovation / Investing in startups

shown above is the Active Navigation Tracking String taught by Patent 8438487 for the page.

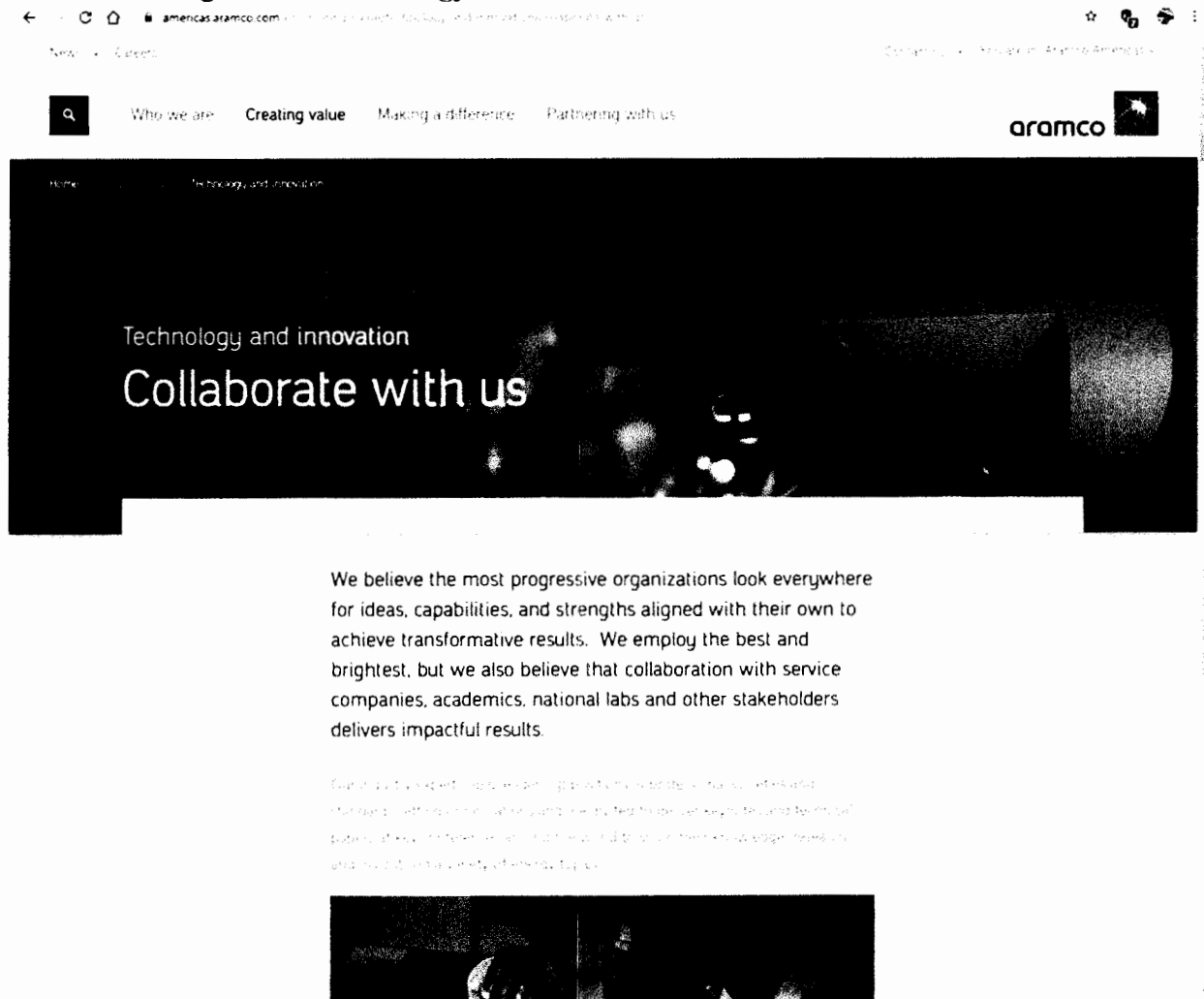
subset of the categorization structure references, such that a user is able to retrieve content of any other web page in the categorization structure by selecting using a single selection gesture a respective reference in the displayed categorization structure; and a gateway symbol displayed on at least some of the plurality of web pages for accessing the displayed categorization structure.

Click to the 2nd level subcategory "Collaborate with us" in the right-column of the dropdown menu under "Creating value", the page below is brought forth to the display screen:

<https://americas.aramco.com/en/creating-value/technology-and-innovation/collaborate-with-us>

The **Active One-Click Navigation Tracking String** taught in 8438487 is shown at the top of the image is shown as:

Home / Creating value / Technology and innovation / Collaborate with us



8438487: Method and system for one-click navigation and browsing of electronic media and their category structure as well as tracking the navigation and browsing thereof

Abstract

Method and apparatus facilitate browsing of web pages or other electronic content stored over a network of remote and/or local storage devices. Browsing is performed without repeated intermediary clicking and page downloads. Pre-browsing of the category structure is provided via rolling the cursor from category to category, and level to level, to view each category's sub-categories, without clicking on a category or downloading web-page(s) linked to the category. When the user selects the content linked to a particular category, the user invokes the link-

token corresponding to the content to retrieve the content. A dynamic tracking-string with an embedded one-click nested/cascading category browsing apparatus facilitates returning and/or changing path during browsing and examination of electronic media, and allows the user to review more than one path along the category structure while the browser is at a page linked to any category at any level.

1. A system for navigating and browsing electronic media, comprising: a device enabling viewing of digitally stored information, the device being configured to display at least portions of a categorization structure for substantially all of a website having a plurality of nested cascading category levels, each category level of the plurality of nested cascading category levels comprising a plurality of category titles of electronic media content stored on at least one storage device, each category title having a selectable link-token to the stored content for said each category title, said each category title also being coupled to a nested subcategory structure of said each category title, the nested subcategory structure of said each category title comprising link-tokens of category titles wherein said each category title and the category titles in the different plurality of category levels are able to be browsed independently of having to select and retrieve the stored content for any title from the at least one storage device, wherein the categorization structure enables a user viewing content of any category title in the categorization structure to retrieve content of any other category title in the categorization structure using a single retrieval command.
2. The system according to claim 1, wherein link-tokens of one or more category titles in a first category level of the plurality of nested cascading category levels are displayed for viewing on a display device in response to placing a cursor on a starting symbol representing a gateway to viewing the categorization structure displayed on the display device, without clicking.
3. The system according to claim 2, wherein the link-tokens of one or more category titles in the first category level are displayed on the display device underneath the starting symbol representing the gateway to viewing the categorization structure.
4. The system according to claim 2, wherein placing the cursor on one link-token of the link-tokens of the one or more category titles in the first category level causes the title corresponding to the one link-token to be changed in appearance and causes a second category level having a second plurality of titles to be displayed alongside the first category level, the plurality of titles in the second category level being sub-categories of the category title changed in appearance in the first category level.
5. The system according to claim 4, wherein the titles in the second category level are displayed in a second listing-area with the titles listed one under the other.
6. The system according to claim 4, wherein placing the cursor on one title of the category titles displayed in the second category level causes said one title of the category titles displayed in the second category level to be changed in appearance and causes a third category level having a third plurality of category titles to be displayed alongside the second category level, the plurality of titles in the third category level being sub-categories of the changed in appearance title displayed in the second category level.
7. The system according to claim 2, wherein the titles in the first category level are displayed in a first listing-area with the titles listed one under the other.

8. The system according to claim 2, wherein the categorization structure resides with the pages of media content but is not displayed on the display device with the media content until a browser places the cursor on the starting symbol.
9. The system according to claim 2, wherein the media content are the pages of a web site.
10. The system according to claim 9, wherein a browser can navigate and browse the different category titles in the different category levels of the categorization structure without having to download a web page from the storage device and without having to navigate back and forth between different web pages.
11. The system according to claim 9, wherein the categorization structure resides with the web pages but is not displayed on the display device with the web pages until a browser places the cursor on the starting symbol.
12. The system according to claim 1, wherein the system has a selectable number of category levels.
13. The system according to claim 1, wherein the system has a selectable number of category titles in each category level.
14. The system according to claim 1, wherein the system is implemented using software, and wherein the single retrieval command is a single click.
15. The system according to claim 1, wherein when the cursor is moved from a category level having a plurality of category titles which are sub-categories of a title in a higher category level, the category level with the plurality of sub-category titles, and all subsequent category levels cease to be displayed on the display device.
16. The system according to claim 1, wherein when the cursor is moved from a first category title in a first category level to a second category title in the first category level, a first plurality of sub-category titles of the first category title in a second, lower category level ceases to be displayed on the display device, and a second plurality of sub-category titles of the second category title on which the cursor now rests is displayed in a second category level on the display device.
17. The system according to claim 1, wherein a browser can browse the categorization structure independently of any media content displayed on the display device.
18. The system according to claim 1, wherein a browser can navigate and browse the different category titles in the different category levels of the categorization structure without having to select and retrieve a page of media content from the storage device and without having to navigate back and forth between different pages of media content.
19. The system according to claim 1, wherein a browser can navigate back and forth between a category title in a first category level and a category title in a second category level of the categorization structure.
20. The system according to claim 1, wherein a browser can move from a first or any category title in a particular level to any other title in the same level of the categorization structure.
21. A system of claim 1, wherein the interlinked content structure is hidden from view and a subcategory structure is not displayed until a cursor rolls over a respective category title.

22. A system for tracking the navigation and browsing of electronic media, and facilitating the changing of navigation and browsing path, the system comprising a computer configured to display to a user pages of content within an inter-linked content structure having a textual table format comprising at least three category levels, and to enable the user to retrieve with one single retrieval command any desired content page within the inter-linked content structure from a display of every other content page of the inter-linked content structure.

23. A system for navigating and browsing electronic media, comprising: a device for viewing of digitally stored information, the device being configured to display at least portions of a categorization tree structure having a plurality of cascading category lists, each list of the plurality of cascading category lists comprising a plurality of category titles to electronic media content stored on at least one storage device, each category title having a selectable link-token to the stored content file for said each category title, wherein the device is configured to display one or more link-tokens in the stored content file for said each category title in response to placement of a cursor on the selectable link-token of said category title without clicking on or invocation of the selectable link-token of said category title, whereby the system enables the category titles in the different plurality of category lists to be browsed independently of selecting and retrieving stored content files for any title from the at least one storage device, wherein the categorization tree structure enables a user viewing content of any category title in the categorization structure to retrieve content of any other category title in the categorization structure using a single retrieval command.

24. A system with one or more processors and memory that enables digitally stored information to be viewed on a display device, comprising: a website comprising a plurality of web pages; a hierarchical categorization structure including a plurality of levels of nested references for substantially all of the web pages in the website, a displayed categorization structure that is viewable in conjunction with the content of any web page in the categorization structure and that includes at least a subset of the categorization structure references, such that a user is able to retrieve content of any other web page in the categorization structure by selecting using a single selection gesture a respective reference in the displayed categorization structure; and a gateway symbol displayed on at least some of the plurality of web pages for accessing the displayed categorization structure.

25. The system of claim 24, wherein the categorization structure is embedded in substantially all of the web pages in the website.

26. The system of claim 24, wherein the categorization structure is linked to substantially all of the web pages in the website.

<https://europe.aramco.com/> and <https://china.aramco.com/> sites and likely many other Saudi Aramco subsidiaries also infringe on this patents.

Aramco Trading Company and Aramco Energy Ventures do not use this patented invention. However they use a variety of features taught in the very powerful Auto-Scrolling and Auto-Change family of seven patented inventions. When Saudi Aramco lawfully licenses this and other patented inventions for the entire SA conglomerate, all subsidiaries can lawfully use these breakthrough Internet patented inventions.